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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,079	07/24/2003	Robert Lombardi	0263421-0040	9962
24280	7590	07/05/2005	EXAMINER	
CHOATE, HALL & STEWART LLP			BRINSON, PATRICK F	
EXCHANGE PLACE			ART UNIT	
53 STATE STREET			PAPER NUMBER	
BOSTON, MA 02109			3754	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/626,079

Applicant(s)

LOMBARI ET AL.

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14, 16-29 and 31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14, 16-29 and 31 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,732,741 to **Shiery '741**.

The patent to **Shiery '741** discloses a pre-assembled water chamber assembly for an expansion tank comprising a pressure assembly (12) having an inlet and an outlet, first and second passage fittings (53, 53') providing fluidic communication between an exterior and interior of the case. Flow through assembly (16), having an interior and exterior and first and second ends sealingly connected to the inlet and outlet, respectively. A resilient diaphragm (14) is disclosed having a middle portion and first and second ends sealingly connected to the flow-through assembly. During use the interior diameter of the first and second ends of the diaphragm are smaller than the interior diameter of the middle portion and the space between the exterior of the flow through assembly and the interior of the diaphragm is in fluidic communication with the interior of the flow through assembly, as recited in claim 9.

Fig. 1 discloses the middle portion of the diaphragm being configured to contact tube (16) at normal operating pressures, as recited in claim 14.

2. Claims 9 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 3,063,470 to **Forester**.

The patent to **Forester** discloses an expansion tank comprising a pressure assembly (1) having an inlet and an outlet, first and second passage fittings (16) providing fluidic communication between an exterior and interior of the case. Flow through assembly (7), having an interior and exterior and first and second ends sealingly connected to the inlet and outlet, respectively. A resilient diaphragm (13) is disclosed having a middle portion and first and second ends sealingly connected to the flow-through assembly. During use the interior diameter of the first and second ends of the diaphragm are smaller than the interior diameter of the middle portion and the space between the exterior of the flow through assembly and the interior of the diaphragm is in fluidic communication with the interior of the flow through assembly, as recited in claim 9. Fig. 1 discloses the middle portion of the diaphragm being configured to contact tube (16) at normal operating pressures, as recited in claim 14.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-13, 16-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,063,470 to **Forester**.

The patent to **Forester** discloses a pressure assembly including tube (7) having first and second ends, first and second passage fittings (16) providing fluidic communication between an interior and exterior of the pressure assembly. First and second collars (11) disposed at the first and second ends of the tubes, respectively, and a resilient diaphragm (13) having first and second ends, the diaphragm sealingly fitted around the first and second collars, respectively. In use, the first and second ends of the diaphragm having a smaller cross sectional area than a middle portion of the diaphragm. The tube includes a plurality of notches or apertures (8) that provide fluidic communication between an exterior of the tube and the interior of the diaphragm. Fig. 1 discloses a portion of at least one collar having an outer diameter that is approximately equal to an inner diameter of the diameter and the diameter of the diaphragm being substantially uniform along its length and greater than the

diameter of the tube, as recited in claims 24 and 25. Fig. 3 discloses the diaphragm being configured to contact the tube at normal operating pressures, while fig. 2 discloses the diaphragm expanded due to increased fluidic pressure. The patent to **Forester** discloses the case (1) comprising a shell (15) having first and second end ring (14) welded to the first and second ends of the shell, respectively and first and second fittings attached to the first and second end ring. A valve system (3, 4, 5, 6) providing controllable fluidic communication between the exterior of the tank and a space between the metallic case and the diaphragm, wherein the valve is disposed in the wall of the end ring, as recited in claims 2, 11, 13 18, 20. **Forester** does not disclose the notches or apertures being open to the end of the tube or notches at the end of the tube. At the time the invention was made, it would have been an obvious design choice to a person of ordinary skill in the art to form the notches at the end of the tube and/or to open the notches to the end of the tube of **Forester** because Applicant has not disclosed that having the notches at the end or opened to the end of the tube provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the notches near the end as suggested by **Forester** because the notches near the end function equally to allow fluidic connection between the tube and the interior of the diaphragm. Therefore, it would have been an obvious matter of design choice to modify **Forester** to obtain the

invention as specified in claims 1, 22, 27 and 31. At the time the invention was made, it would have been an obvious design choice to a person of ordinary skill in the art to form the ends as domes that are welded to the shell or to form the assembly as two domes welded to one another because Applicant has not disclosed that these features provide an advantage, is used for a particular purpose, or solves a stated problem.

One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the shell (15) welded to ring piece (14) and an H-shaped end screwed into the ring piece as suggested by **Forester**. Therefore, it would have been an obvious matter of design choice to modify **Forester** to obtain the invention as specified in claims 3, 4, 10, 12 and 17.

### ***Response to Amendment***

4. Applicant states that claim 9 provides for a notch that is open to the end of the tube, however claim 9 does not require the notch to open to the end of the tube.

Applicant has not successfully argued, however, the distinction between the invention's "notch" at the end of the tube and the "blind hole" of either **Shiery** and **Forster**. It is merely argued that the references do not disclose a "notch". Whether it is termed a "notch" or "hole", these elements function equally to allow fluid communication between the interior of the tube and the interior of the diaphragm.

Though not provided at the end of the tube, it is shown with both references that the

holes are adjacent the ends of the tube to allow fluid to expand the diaphragm and to push old water out of the tank as new water flows into the tube. Though not specifically an issue with **Forster**, it is inherent that the fluid would flow into and out of the tube through holes as they would the notches of the present invention. In response to Applicant's arguments regarding the rejection of the limitation of claim 17, it should be noted that it is the Examiner's position that indeed, **Forster** does not disclose the claimed subject matter, however, in this case, it is believed to be a matter of design choice. The invention claims first and second domed ends into which fittings are connected. These domed pieces are connected to the shell in which the diaphragm is fitted. **Forster** essentially discloses the same structure, but with a modified design. Instead of domes, there are circular pieces (14), one of which include the valve means to pressurize the outside of the diaphragm, as does the present invention. Fittings (16) are connected to these pieces. These pieces are connected at each end to the shell (15) in which the diaphragm is fitted. There is no advantage to having domed ends over the ends of **Forster**.

The patent to **Zahid et al.** is listed to show a tube having a notch/slot near the end of the tube to allow fluid communication between the interior of the tube and the interior of the diaphragm.



***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick F. Brinson  
Primary Examiner  
Art Unit 3754

P. F. Brinson  
June 29, 2005